

In the Claims

1. (Currently Amended) A method for protecting equipment in a network element, comprising:

receiving a protection request for a first equipment item, the first equipment item having a first equipment type;

receiving ~~the a~~ protection request for a second equipment item, the second equipment item having a second equipment type;

determining a higher priority item between the first and second equipment items based on the first and second equipment types; and

performing the protection request for the higher priority item.

2. (Original) The method of Claim 1, wherein the equipment items comprise line interface cards.

3. (Original) The method of Claim 2, wherein line interface cards each comprise a plurality of single user connections.

4. (Original) The method of Claim 2, wherein the line connection interface cards each comprise only single user connections.

5. (Original) The method of Claim 2, wherein the line interface cards each comprise the plurality of DS-1 connections.

6. (Original) The method of Claim 2, further comprising determining the higher priority item based on an identifier of the line interface cards.

7. (Original) The method of Claim 1, further comprising:
performing the protection request for the first equipment item in an absence of the protection request for the second equipment item;
determining the higher priority item in response to receiving the protection requests for the second equipment item; and
deactivating the protection request for the first equipment item in response to determining the second equipment item is the higher priority item.
8. (Original) The method of Claim 1, wherein the protection request comprises an activation request, further comprising determining the higher priority item in response to the activation request for the first and second equipment items.
9. (Original) The method of Claim 1, wherein the request is a first request, further comprising:
receiving a second request, the second request comprising a deactivation request for a disparate equipment item; and
determining the higher priority item for the first request in response to the deactivation request.
10. (Original) The method of Claim 1, further comprising receiving the protection request for at least one of the equipment items from a network operator.
11. (Original) The method of Claim 1, further comprising receiving the protection request for at least one of the equipment items automatically in response to failure of the equipment item.

12. (Original) The method of Claim 1, wherein the protection request is a first protection request, further comprising:

- receiving a second protection request for a third equipment item;
- determining a higher priority request between the first and second protection requests;
- determining the higher priority item between the first and second equipment items if the first protection request is the higher priority request; and
- performing the second protection request if it is the higher priority request.

13. (Currently Amended) A method for providing 1:N protection switching for equipment in a network element, comprising:

receiving a protection request for an equipment item, wherein the protection request has a request type and where the equipment item has an equipment type;

evaluating a priority of the request based on the request type and the equipment type ~~and a priority of the equipment item~~ relative to all other outstanding protection requests for equipment items in a protection group with the equipment item;

if a single outstanding protection request has a request type with a highest priority among the outstanding protection requests, performing the protection request with this highest priority; and

if a group of two or more outstanding protection request have request types of equally high priority, performing the protection request from this group for the highest priority equipment type ~~a highest priority protection request for a highest priority equipment item.~~

14. (Original) The method of Claim 13, wherein the equipment items comprise line interface cards.

15. (Original) The method of Claim 14, wherein the line interface cards each comprise a plurality of single user connections.

16. (Original) The method of Claim 15, wherein the single user connections comprise DS-1 connections.

17. (Original) The method of Claim 13, wherein the priority of the equipment items are evaluated based on an identifier of the equipment items.

18. (Currently Amended) A system for providing protection switching for equipment in a network element, comprising:

an encoded medium;

logic encoded on the medium, the logic operable to receive a protection request for an equipment item, wherein the protection request has a request type and where the equipment item has an equipment type, evaluate a priority of the request based on the request type and the equipment type ~~and a priority of the equipment item~~ relative to all other outstanding protection requests for equipment items in a protection group with the equipment item, if a single outstanding protection request has a request type with a highest priority among the outstanding protection requests, perform the protection request with this highest priority, and if a group of two or more outstanding protection request have request types of equally high priority, perform the protection request from this group for the highest priority equipment type ~~a highest priority protection request for a highest priority equipment item.~~

19. (Original) The system of Claim 18, wherein the equipment items in the protection group comprise line interface cards.

20. (Original) The system of Claim 19, wherein the line interface cards each comprise a plurality of single user connections.

21. (Original) The system of Claim 20, wherein the single user connections comprise DS-1 connections.

22. (Original) The system of Claim 18, wherein the priority of the equipment items are evaluated based on identifiers of the equipment items.

23. (Currently Amended) A system for providing protection switching for equipment in a network element, comprising:

means for receiving a protection request for an equipment item, wherein the protection request has a request type and where the equipment item has an equipment type;

means for evaluating a priority of the request based on the request type and the equipment type ~~and a priority of the equipment item~~ relative to all other outstanding protection requests for equipment items in a protection group with the equipment item;

if a single outstanding protection request has a request type with a highest priority among the outstanding protection requests, means for performing the protection request with this highest priority; and

if a group of two or more outstanding protection request have request types of equally high priority, means for performing the protection request from this group for the highest priority equipment type ~~a highest priority protection request for a highest priority equipment item.~~

24. (Original) The system of Claim 23, wherein the equipment items in the protection group comprise line interface cards.

25. (Original) The system of Claim 24, wherein the line interface cards each comprise a plurality of single user connections.

26. (Original) The system of Claim 25, wherein the single user connections comprise a plurality of DS-1 connections.

27. (Currently Amended) A network element for a telecommunications system; comprising:

a protection group including a plurality of working line interface cards and a protection line interface card;

a protection controller operable to store a state of each working and protection line interface card in the protection group; and

a finite state machine operable to ~~activate~~ evaluate a ~~highest priority protection of a request for~~ based on a request type of the request and an equipment type of one working line interface card ~~a highest priority equipment item between~~ relative to all other outstanding protection requests for equipment items working line interface cards in the protection group with the one working line interface card, based on the states of the working and protection line interface cards if a single outstanding protection request has a request type with a highest priority among the outstanding protection requests, activate the protection request with this highest priority, and if a group of two or more outstanding protection request have request types of equally high priority, activate the protection request from this group for the highest priority equipment type.